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Amendments in Redline Form

RULES

OF

THE TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION

DIVISION OF SOLID WASTE MANAGEMENT

RULE CHAPTER 1200-01-11

HAZARDOUS WASTE MANAGEMENT

The following six pages are associated with the November 21, 2008 amendment filing pertaining to Tennessee Rule Chapter 1200-01-11, Hazardous Waste Management. The public hearing is scheduled for January 15, 2009 at 9:30 a.m. The comment period for this action closes on January 27, 2009.

These amendments are associated with incorporation of the federal amendments in RCRA Cluster XVIII, Revision Checklists 216, 217, and 218, into Tennessee's hazardous waste management regulations. These revisions are not effective in Tennessee until they are formally adopted into Tennessee's Hazardous Waste Management Regulations. Federal revision Checklist 216 consists of federal amendments associated with oil-bearing hazardous secondary materials that were promulgated on January 2, 2008 and became effective at the federal level on February 1, 2008. Federal revision Checklist 217 consists of federal amendments associated with national emission standards for Hazardous Air Pollutants that were promulgated on April 8, 2008 and became effective at the federal level on April 8, 2008. Federal revision Checklist 218 covers federal amendments associated with the F019 listing that were promulgated on June 4, 2008 and became effective at the federal level on July 7, 2008.

(Rule 1200-01-11-.01, continued)

"Functionally equivalent component" means a component which performs the same function or measurement and which meets or exceeds the performance specifications of another component.

"Furans" – see "Dioxins and furans".

"Gasification" for the purpose of complying with Rule 1200-01-11-.02(1)(d)1(xii) means a process, conducted in an enclosed device or system, designed and operated to process petroleum feedstock, including oil-bearing hazardous secondary materials through a series of highly controlled steps utilizing thermal decomposition, limited oxidation, and gas clearing to yield a synthesis gas composed primarily of hydrogen and carbon monoxide gas.

"Generation" means the act or process of producing hazardous wastes.

"Generator" means any person, by site, whose act or process produces hazardous waste identified or listed in Rule 1200-01-11-.02 or whose act first causes a hazardous waste to become subject to regulation.

"Ground water" means water below the land surface in a zone of saturation.

"Hazardous waste" means a hazardous waste as defined in Rule 1200-01-11-.02(1)(c).

"Hazardous waste code" means the code assigned by the Department to each hazardous waste listed in Rule 1200-01-11-.02(4) and to each characteristic identified in Rule 1200-01-11-.02(3), and any derivation of such codes which may be assigned by the Department to an individual waste or class of wastes.

"Hazardous waste constituent" means a constituent that caused the Board to list the hazardous waste in Rule 1200-01-11-.02(4), or a constituent listed in Table 1 of Rule 1200-01-11-.02(3)(e).

"Hazardous waste management unit" is a contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is significant likelihood of mixing hazardous waste constituents in the same area. Examples of hazardous waste management units include a surface impoundment, a waste pile, a land treatment area, a landfill cell, an incinerator, a tank and its associated piping and underlying containment system, and a container storage area. A container alone does not constitute a unit; the unit includes containers and the land or pad upon which they are placed.

"Inactive portion" means that portion of a facility which is not operated after the date one or more of the hazardous wastes handled by the facility first became subject to regulation under rules promulgated under the Act. (See also "active portion" and "closed portion".)

"Incinerator" means any enclosed device that:

1. Uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or
2. Meets the definition of infrared incinerator or plasma arc incinerator.

"Incompatible waste" means a hazardous waste which is unsuitable for:

(Rule 1200-01-11-.02, continued)

generation, these materials are recycled to coke ovens, to the tar recovery process as a feedstock to produce coal tar, or mixed with coal tar prior to the tar's sale or refining. This exclusion is conditioned on there being no land disposal of the wastes from the point they are generated to the point they are recycled to coke ovens or tar recovery or refining processes, or mixed with coal tar.

- (xi) Nonwastewater splash condenser dross residue from the treatment of K061 in high temperature metals recovery units, provided it is shipped in drums (if shipped) and not land disposed before recovery.
- (xii) (I) Oil-bearing hazardous secondary materials (i.e., sludges, byproducts, or spent materials) that are generated at a petroleum refinery (SIC code 2911) and are inserted into the petroleum refining process (SIC code 2911 - including, but not limited to distillation, catalytic cracking, fractionation, **gasification (as defined in Rule 1200-01-11-.01(2)(a))**, or thermal cracking units (i.e., cokers)) unless the material is placed on the land, or speculatively accumulated before being so recycled. Materials inserted into thermal cracking units are excluded under this item provided that the coke product also does not exhibit a characteristic of hazardous waste. Oil-bearing hazardous secondary materials may be inserted into the same petroleum refinery where they are generated, or sent directly to another petroleum refinery, and still be excluded under this provision. Except as provided in item (II) of this subpart, oil-bearing hazardous secondary materials generated elsewhere in the petroleum industry (i.e., from sources other than petroleum refineries) are not excluded under this subpart. Residuals generated from processing or recycling materials excluded under this item (I) of this subpart, where such materials as generated would have otherwise met a listing under paragraph (4) of this Rule, are designated as F037 listed wastes when disposed of or intended for disposal.
- (II) Recovered oil that is recycled in the same manner and with the same conditions as described in item (I) of this subpart. Recovered oil is oil that has been reclaimed from secondary materials (including wastewater generated from normal petroleum industry practices, including refining, exploration and production, bulk storage, and transportation incident thereto (SIC codes 1311, 1321, 1381, 1382, 1389, 2911, 4612, 4613, 4922, 4923, 4789, 5171, and 5172). Recovered oil does not include oil-bearing hazardous wastes listed in paragraph (4) of this Rule; however, oil recovered from such wastes may be considered recovered oil. Recovered oil does not include used oil as defined in Rule 1200-01-11-.11(1)(a).
- (xiii) Petroleum tank bottom waters (the water phase which accumulates in operating petroleum tanks) removed from petroleum tanks at retail, government or private outlets, bulk petroleum plants and terminals, or petroleum pipeline breakout tankage that contain recoverable petroleum product provided:
 - (I) The petroleum product is being or shall be legitimately recycled;

(Rule 1200-01-11-.02, continued)

F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	(R, T)
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process.	(T)
F019	<p>Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process. Wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process will not be subject to this listing at the point of generation if the wastes are not placed outside on the land prior to shipment to a landfill for disposal and are either: disposed in a Subtitle D municipal or industrial landfill unit that is equipped with a single clay liner and is permitted, licensed or otherwise authorized by the state; or disposed in a landfill unit subject to, or otherwise meeting, the landfill requirements in [40 CFR 258.40] or the state equivalent, Rule 1200-01-11-.06(14)(b) or Rule 1200-01-11-.05(14)(b). For the purposes of this listing, motor vehicle manufacturing is defined in item 2(iv)(I) of this subparagraph and item 2(iv)(II) of this subparagraph describes the recordingkeeping requirements for motor vehicle manufacturing facilities.</p> <p>Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.</p>	(T)
F020	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.).	(H)
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	(H)
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	(H)
F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.).	(H)
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in subparagraph (b) or (c) of this paragraph.).	(T)
F025	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution.	(T)
F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.	(H)

(Rule 1200-01-11-.02, continued)

(iv) For the purposes of the F019 listing, the following apply to wastewater treatment sludges from the manufacturing of motor vehicles using a zinc phosphating process.

(I) Motor vehicle manufacturing is defined to include the manufacture of automobiles and light trucks/utility vehicles (including light duty vans, pick-up trucks, minivans, and sport utility vehicles). Facilities must be engaged in manufacturing complete vehicles (body and chassis or unibody) or chassis only.

(II) Generators must maintain in their on-site records documentation and information sufficient to prove that the wastewater treatment sludges to be exempted from the F019 listing meet the conditions of the listing. These records must include: the volume of waste generated and disposed of off site; documentation showing when the waste volumes were generated and sent off site; the name and address of the receiving facility; and documentation confirming receipt of the waste by the receiving facility. Generators must maintain these documents on site for no less than five (5) years. The retention period for the documentation is automatically extended during the course of any enforcement action or as requested by the Commissioner.

(c) Hazardous Wastes from Specific Sources [40 CFR 261.32]

1. The following solid wastes are listed hazardous wastes from specific sources unless they are excluded under subparagraphs (a) and (c) of Rule 1200-01-11-.01(3) and listed in paragraph (5) Appendix IX of this Rule.

Industry and Hazardous Waste Code	Hazardous Waste	Hazard Code
Wood preservation: K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	(T)
Inorganic pigments: K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	(T)
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	(T)
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	(T)
K005	Wastewater treatment sludge from the production of chrome green pigments.	(T)

(Rule 1200-01-11-.06, continued)

- (i) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through the soil or to volatilize or escape into the atmosphere;
 - (ii) The attenuative properties of underlying and surrounding soils or other materials;
 - (iii) The mobilizing properties of other materials co-disposed with these wastes; and
 - (iv) The effectiveness of additional treatment, design, or monitoring requirements.
2. The Commissioner may determine that additional design, operating, and monitoring requirements are necessary for landfills managing hazardous wastes F020, F021, F022, F023, F026, and F027 in order to reduce the possibility of migration of these wastes to ground water, surface water, or air so as to protect human health and the environment.

(15) Incinerators [40 CFR 264 Subpart O]

- (a) Applicability [40 CFR 264.340]
 - 1. The regulations of this paragraph apply to owners and operators of hazardous waste incinerators (as defined in Rule 1200-01-11-.01(2)(a)), except as subparagraph (1)(b) of this Rule provides otherwise.
 - 2. Integration of the MACT standards
 - (i) Except as provided by subparts 2(ii) through 2(iv) of this subparagraph, the standards of this Rule do not apply to a new hazardous waste incineration unit that becomes subject to RCRA permit requirements after October 12, 2005; or no longer apply when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the maximum achievable control technology (MACT) requirements of 40 CFR 63 Subpart EEE by conducting a comprehensive performance test and submitting to the Commissioner a Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(d) documenting compliance with the requirements of 40 CFR 63 Subpart EEE. Nevertheless, even after this demonstration of compliance with the MACT standards, Hazardous Waste permit conditions that were based on the standards of this Rule will continue to be in effect until they are removed from the permit or the permit is terminated or revoked, unless the permit expressly provides otherwise.
 - (ii) The MACT standards do not replace the closure requirements of subparagraph (15)(1) or the applicable requirements of paragraphs (1) through (8), (31), and (32) of this Rule.
 - (iii) The particulate matter standard of part (d)3 of this paragraph remains in effect for incinerators that elect to comply with the alternative to the particulate matter standard of §63.1206(b)(14) and 63.1219(e).

(Rule 1200-01-11-.06, continued)

- (iv) The following requirements remain in effect for startup, shutdown, and malfunction events if you elect to comply with item (12)(a)1(i)(I) of Rule 1200-01-11-.07 to minimize emissions of toxic compounds from these events:
 - (I) Part (15)(f)1 of this Rule requiring that an incinerator operate in accordance with operating requirements specified in the permit; and
 - (II) Part (15)(f)3 of this Rule requiring compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes.
- ~~(v) The particulate matter standard of part (d)3 of this paragraph remains in effect for incinerators that elect to comply with the alternative to the particulate matter standard of 40 CFR 63.1206(b)(14) and 63.1219(e).~~
- 3. After consideration of the waste analysis included with Part B of the permit application, the Commissioner, in establishing the permit conditions, must exempt the applicant from all requirements of this paragraph except subparagraph (b) of this paragraph (Waste analysis) and subparagraph (I) of this paragraph (Closure),
 - (i) If the Commissioner finds that the waste to be burned is:
 - (I) Listed as a hazardous waste in Rule 1200-01-11-.02(4) solely because it is ignitable (Hazard Code I), corrosive (Hazard Code C), or both; or
 - (II) Listed as a hazardous waste in Rule 1200-01-11-.02(4) solely because it is reactive (Hazard Code R) for characteristics other than those listed in Rule 1200-01-11-.02(3)(d)1(iv) and (v), and will not be burned when other hazardous wastes are present in the combustion zone; or
 - (III) A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the test for characteristics of hazardous wastes under Rule 1200-01-11-.02(3); or
 - (IV) A hazardous waste solely because it possesses any of the reactivity characteristics described by Rule 1200-01-11-.02(3)(d)1(i), (ii), (iii), (vi), (vii) and (viii), and will not be burned when other hazardous wastes are present in the combustion zone; and
 - (ii) If the waste analysis shows that the waste contains none of the hazardous constituents listed in Appendix VIII of Rule 1200-01-11-.02, which would reasonably be expected to be in the waste.
- 4. If the waste to be burned is one which is described by items 3(i)(I) through (IV) of this subparagraph and contains insignificant concentrations of the hazardous constituents listed in Appendix VIII of Rule 1200-01-11-.02, then the Commissioner may, in establishing permit conditions, exempt the applicant from all requirements of this paragraph, except subparagraph (b) of this paragraph